

DOE Workshop: Pathway to SMR Commercialization

In November 2015, the United States (U.S.) Department of Energy (DOE) launched the Gateway for Accelerated Innovation in Nuclear (GAIN) initiative to accelerate innovation of advanced nuclear technologies by providing potential industry partners with opportunities to access the technical, regulatory, and financial support necessary to move innovative nuclear energy technologies toward commercialization. GAIN is expected to provide a vehicle for support of public-private partnerships to achieve national goals established by the DOE Office of Nuclear Energy (NE). NE has been supporting the development of domestic small modular reactor (SMR) designs through the SMR Licensing Technical Support (LTS) program, which provides financial assistance for SMR design development and efforts leading to design certification, site permit, and license approvals from the U.S. Nuclear Regulatory Commission. DOE continues to believe that SMRs could play an important role in addressing the energy, economic, and environmental goals of the U.S.

The ultimate path to successful commercialization of SMR technologies will depend on many factors, including economic competitiveness, regulatory measures to reduce carbon emissions, market growth, as well as others. Two related areas in which the Department has an interest are:

- (1) Manufacturing technologies to reduce cost and schedule for SMR parts and components and meet the demands of the industry as it grows; and
- (2) Additional SMR capabilities beyond baseload electricity generation, including use of SMRs in hybrid energy systems and in meeting national security needs.

DOE recognizes the need for a collaborative path forward with industry to determine the optimum set of activities that could achieve the goal of ensuring successful SMR deployments. Therefore, DOE requests domestic industry participation in a 2-day comprehensive workshop to elicit opinions on the two key topics identified above.

The workshop will include participation from domestic vendors, utilities, nuclear supply chain entities, laboratories, universities, or other related professional organizations to provide input and ideas in support of the DOE SMR commercialization goals.

The first day will address the question of what manufacturing techniques, capabilities, or process improvements could provide the most significant benefit(s) for improving SMR economics, and how to accomplish the transition from prototype fabrication capability to a robust SMR manufacturing enterprise.

The second day of the workshop will address the question of what SMR capabilities should be developed further to improve the global marketability of SMRs.

Participants should consider SMR-focused concepts that support the development of any non-electric applications, the use of SMR-generated process heat in various industrial and community environments, capabilities to deliver secure power to critical missions, improvements in load-following capabilities to support grid stability, and the use of SMRs as a component of hybrid energy systems, as examples.

Workshop results will help inform DOE's future program plans to support the development of a domestic SMR industry with the ultimate goal of positioning U.S. SMRs to succeed. The maturation of SMR technologies is integral to promoting the Administration's "all of the above" energy strategy, contributing towards meeting national climate and clean energy goals, and facilitating U.S. industrial competitiveness.

To register and for a complete agenda, please go to:

<http://www.eventbrite.com/e/doe-workshop-pathway-to-smr-commercialization-registration-25196577642>



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